



# Read Before Installing

## A785xA CD-RW Drive in B-, C- and J-Class HP-UX Workstations

For a tutorial on creating CD-RW masters on HP-UX systems, refer to the /opt/OpenSource/cdrtools-1.10/USER\_GUIDE.pdf file on the CD-RW software media.

**Supported Features.** This product (and associated software) is intended to be used primarily as a data storage and exchange device. Hewlett-Packard does not support the creation or duplication of audio CDs using this product and software. It is also recommended that you DO NOT use this drive as a backup tool.

Feature	HP Support
Audio CD duplication	No (both GUI and command line)
Create bootable HP-UX CD	GUI=No, Command line=Yes
Duplicate bootable CD	Yes (GUI and command line) if CD is valid
Multi-Session recording	No (both GUI and command line)
Copying HP-UX install CD	For more information go to USER_GUIDE.pdf on the CD
Copy CD-to-CD	No (both GUI and command line)
Disk-at-once recording	No (both GUI and command line)
Track-at-once recording	Yes (both GUI and command line)
Data recording (any file type)	Yes (both GUI and command line)

## Hardware Installation

The A785xA CD-RW drive you have purchased may be installed in any one of several models of HP-UX Workstations - b1000, b2000, b2600, c3000, c3600, c3650, c3700, j5600, j6000 or j6700. For complete instructions on how to install the drive on your system, please refer to the appropriate Owners Guide, Parts Replacement Guide or Technical Reference for your system. These documents can be found at: [http://www.hp.com/workstations/support/documentation/hpux\\_manuals.html](http://www.hp.com/workstations/support/documentation/hpux_manuals.html)

This CD-RW drive can either be installed to replace an existing CD-ROM drive or as a new drive where none existed before. It also may have been integrated into your computer at the HP factory. HP CD-RW drives were designed to operate in the horizontal position. Do not position your workstation so the CD-RW drive is in a vertical position.

If you are replacing an existing CD-ROM drive with the CD-RW Drive, you must load the PHKL\_24282 (for HP-UX 11.0) or PHKL\_24283 (for HP-UX 11i) patches from the CD-RW software media. If you are installing a new drive where none existed before, you must load the patches from the <http://us-support.external.hp.com> web site. Make sure these patches are installed on your system before attempting to install the hardware.

## Software Installation

**Note: About Open Source software.** This product includes two CD-RW application programs - *cdrecord* and *X-CD-Roast* - that provide additional capabilities and ease-of-use. These applications will work **only on HP-UX 11.0 or 11i**. This software is not a Hewlett-Packard product and there is no support offered for these applications. Hewlett-Packard has evaluated these applications to confirm some basic functionality but not all features or capability offered by the applications are functional on HP-UX (please refer to the tutorial file `USER_GUIDE.pdf` located on the CD-RW software media). These applications are provided at no cost under the terms of a General Public License (GPL). Additional information and the source code for these applications is available at the following locations:

- *cdrecord*:  
<http://www.fokus.gmd.de/research/cc/glone/employees/joerg.schilling/private/cdrecord.html>
- *X-CD-Roast*:  
<http://www.xcdroast.org/>

There are other applications available that can perform similar tasks. These applications can be found by searching the Web.

## Installation Procedure

1. Make sure the PHKL\_24282 (for HP-UX 11.0) or PHKL\_24283 (for HP-UX 11i) patch is installed on your system. If not, obtain and install the patch from the CD-RW software media or HP web site (see above). This will allow your system to communicate with the CD-RW drive.
2. Install the software on your system. As root, execute the following command:  

```
/usr/sbin/swinstall -s /dev/dsk/<cdrom id> /depot/OpenSource
```

  
The software will be installed in `/opt/OpenSource`
3. Make sure your system is backed up and shutdown properly.
4. Install the CD-RW hardware. See the "Hardware Installation" section of this document.
5. Boot your system and run the MKNOD.hpux script that is provided with the *X-CD-Roast* software:  

```
/opt/OpenSource/bin/MKNOD.hpux
```

## Quick Guide - How to Write a CD on an HP-UX System

The following instructions show you how to write an HP-UX file system (using ISO9660 conventions) to a CD-RW disk and then take that disk to another HP-UX system and restore that file system.

**Caution: CD writing is a real-time process which must run constantly at the selected recording speed, without interruption. Consequently, running other applications while writing to the CD-RW can cause the operation to fail. It is highly recommended that you DO NOT start or run any applications until the recording process is complete.**

## First Time Users of *X-CD-Roast*

If this is the first time you have started *X-CD-Roast*, then you must first perform the following steps (as root) to define your default options:

1. Start *X-CD-Roast* by executing:  

```
$/opt/OpenSource/bin/xcdroast
```

  
A window will appear with **No configuration file found! Please enter Setup**. Click the **OK** button. The *X-CD-Roast* initial screen will appear.
2. Click the **Setup** button, the Setup screen will appear with six tabs.
3. Click the third tab: **HD Settings**. You must name the scratch directory to be used when building or

copying CD's. For example, if you have a large amount of free disk space in the filesystem named /infinite. We will use this as our scratch area. In the bottom pane labeled **Path:**, enter /infinite. Then click on the **Add** button.

4. Click the fifth tab: **Options**. At the bottom of this screen, from the pull-down list labeled **Default Write Mode:**, select **Track-At-Once** (TAO).
5. Click the sixth tab **User**. This will provide access and permissions to the users and hosts. Changing the access to "All" and allowing all permissions will help prevent future problems to the non-root user.
6. On the far left, click on **Save Configuration**. A new window will appear, then click the **OK** button.
7. On the far left, click on the **OK** button.

You have now defined your user defaults and will be back on the initial *X-CD-Roast* screen. Continue to Step 2 below.

## Repeat Users of *X-CD-Roast*

1. Start *X-CD-Roast*:  
`$opt/OpenSource/bin/xcdroast`
2. Click the **Create CD** button
3. Click the **Master Tracks** button. On the CreateCD screen, there will be five tabs and you will only be using two of the tabs.
4. The left tab: **Master Source** has 2 panes. Under the right hand pane, click on the **Display Directories Only** (that is, de-select it).
5. In the right pane labeled **File/Directory View**, select the files/directories you want to place on the CD. For example, if you want to put your home directory on a CD and your username is "persnickety":
  - a. Scroll down in the right hand pane until you find "home". Click on the plus (+) sign beside this directory.
  - b. Scroll down until you find "persnickety" under the "home" directory.
  - c. Click on this directory to highlight it and then click the **Add** button just below the pane. A new window will appear, then click the **OK** button.
6. To the tab: **Create Session/Image**. Click on the **Calculate Size** button. A new window will appear, then click the **OK** button.
7. At the bottom right of the screen, click on the **Master and write on-the-fly** button. A new window will appear, then insert a blank CD into your CD-writer and click the **OK** button. Another new window will appear with the status messages printed as the CD is saving your files. (you may resize this window to see more info).
8. When the CD burning has finished, the CD drawer will open automatically. Click on the **OK** button in the status window.
9. Click the **Back to main menu** button.
10. Click the **Exit** button. A new window will appear, then click the **Yes** button.
11. Close the CD tray. On the HP-UX workstation containing the CD-writer, execute (as root):  
`# mount -o cdcase /dev/dsk/c0t0d0 /cdrom`
12. You should now be able to see all of your files within the /cdrom directory.
13. OPTIONAL: You may copy the file system to the desired location. File permissions, owners and groups may not reflect the original settings. You can solve this by running:  
`chmod -R xxx /filesystem`  
You can also change these owner and group permission by executing the appropriate `chown` and `chgrp` commands with the "-R" option.

For the best performance of the final CD, follow the steps above each time you create the HFS file system. In particular, do not remove some files and then add more files to the mounted volume. This will create file fragmentation which will slow the read performance of the final CD.

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